



RECEIVED

SEP 14 2001

TECH CENTER 1600/2900

<110> Freyssinet, Georges  
Derose, Richard  
Hoffman, Jules

<120> GENE CODING FOR ANDROCTONINE, VECTOR  
CONTAINING SAME AND TRANSFORMED DISEASE-RESISTANT PLANTS  
OBTAINED

<130> A33002-PCT-USA 072667.0124

<140> 09/486,094

<141> 2000-07-17

<150> PCT/FR98/01814

<151> 1998-08-18

<150> FRANCE 97/10632

<151> 1997-08-20

<160> 12

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 110

<212> DNA

<213> Androctonus australis

<220>

<221> CDS

<222> (1)...(75)

<223> Androctonine

<400> 1

agg tcc gtg tgc agg cag atc aag atc tgc agg agg agg ggt ggt tgc 48  
Arg Ser Val Cys Arg Gln Ile Lys Ile Cys Arg Arg Arg Gly Gly Cys  
1 5 10 15

tac tac aag tgc act aac agg cca tac tgagctcggc gaggcgaacg 95  
Tyr Tyr Lys Cys Thr Asn Arg Pro Tyr  
20 25

tgtcgacgga tccgg 110

<210> 2

<211> 106

<212> DNA

<213> Tobacco

<220>

<221> CDS

<222> (12)...(101)

<223> Tobacco PR-1a signal peptide

<400> 2

gcgtcgacgc c atg ggt ttc gtg ctt ttc tct cag ctt cca tct ttc ctt 50  
Met Gly Phe Val Leu Phe Ser Gln Leu Pro Ser Phe Leu

SUB  
C1

```

1             5             10
ctt gtg tct act ctt ctt ctt ttc ctt gtg atc tct cac tct tgc cgt 98
Leu Val Ser Thr Leu Leu Leu Phe Leu Val Ile Ser His Ser Cys Arg
15             20             25

gcc ggcga 106
Ala
30

<210> 3
<211> 211
<212> DNA
<213> Artificial Sequence

<220>
<223> Linker

<221> CDS
<222> (12)...(176)
<223> Linker

<400> 3
gcgtcgacgc c atg ggt ttc gtg ctt ttc tct cag ctt cca tct ttc ctt 50
Met Gly Phe Val Leu Phe Ser Gln Leu Pro Ser Phe Leu
1             5             10

ctt gtg tct act ctt ctt ctt ttc ctt gtg atc tct cac tct tgc cgt 98
Leu Val Ser Thr Leu Leu Leu Phe Leu Val Ile Ser His Ser Cys Arg
15             20             25

gcc agg tcc gtg tgc agg cag atc aag atc tgc agg agg agg ggt ggt 146
Ala Arg Ser Val Cys Arg Gln Ile Lys Ile Cys Arg Arg Arg Gly Gly
30             35             40             45

tgc tac tac aag tgc act aac agg cca tac tgagctcggc gaggcgaacg 196
Cys Tyr Tyr Lys Cys Thr Asn Arg Pro Tyr
50             55

tgtcgacgga tccgg 211

<210> 4
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide 1

<400> 4
gcgtcgacgc gatgggtttc gtgtttttct ctcagcttcc atcttttcctt cttgtgtcta 60
ctctttcttct tttcc 75

<210> 5
<211> 72
<212> DNA

```

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide 2

<400> 5

tcgccggcac ggcaagagta agagatcaca aggaaaagaa gaagagtaga cacaagaagg 60  
aaagatggaa gc 72

<210> 6

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide 3

<400> 6

agggtccgtgt gcaggcagat caagatctgc aggaggaggg gtgg 44

<210> 7

<211> 97

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide 4

<400> 7

ccggatccgt cgacacgttc gcctcgccga gctcagtatg gcctgttagt gcaacttgtag 60  
tagcaaccac ccctcctcct gcagatcttg atctgcc 97

<210> 8

<211> 85

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide 5

<400> 8

aggggcccct agggtttaaa cggccagtca ggccgaattc gagctcggta cccgggggac 60  
ctctagagtc gacctgcagg catgc 85

<210> 9

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide 6

<400> 9

ccctgaacca ggctcgaggg cgcgccttaa ttaaaagctt gcatgcctgc aggtcgactc 60  
tagagg 66

<210> 10

<211> 93  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Oligonucleotide primer

<400> 10  
ccggccagtc aggccacact taattaagtt taaacgcggc cccggcgcg ctaggtgtgt 60  
gctcgagggc ccaacctcag tacctgggtc agg 93

<210> 11  
<211> 93  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Oligonucleotide primer

<400> 11  
ccggcctgaa ccaggtactg aggttggggc ctcgagcaca cacctaggcg cgccggggcc 60  
gcgtttaaac ttaattaagt gtggcctgac tgg 93

<210> 12  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Androctonine consensus sequence

<221> VARIANT  
<222> (1)...(1)  
<223> Any amino acid

<221> VARIANT  
<222> (3)...(7)  
<223> Any amino acid

<221> VARIANT  
<222> (9)...(13)  
<223> Any amino acid

<221> VARIANT  
<222> (15)...(17)  
<223> Any amino acid

<221> VARIANT  
<222> (19)...(19)  
<223> Any amino acid

<400> 12  
Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa  
1 5 10 15  
Xaa Cys Xaa